

Appl. No.: 10/091,906
Reply to Office Action of: 10/15/2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claim(s) 31 without prejudice.

Listing of Claims:

1. (Currently amended) An optical connector adapter comprising:

a housing having at least one passage formed therein for receiving a pair of connectors adapted to be mated to each other; and

a pair of separate latch inserts individually located in the at least one passage, each latch insert being adapted for locking a corresponding connector of the pair of connectors to the housing, and at least one latch insert of the pair of latch inserts having a spring loaded projection;

wherein the housing has at least one detent formed therein, the spring loaded projection on the at least one latch insert being biased into the at least one detent locking the at least one latch insert to the housing.

2. (Original) The optical connector adapter according to Claim 1, wherein the housing is a one-piece member.

3. (Previously presented) An optical connector adapter comprising:

a housing having at least one passage formed therein for receiving a pair of connectors adapted to be mated to each other; and

a pair of latch inserts located in the at least one passage, each latch insert being adapted for locking a corresponding connector of the pair of connectors to the housing, and at least one latch insert of the pair of latch inserts having a spring loaded projection;

wherein the housing has at least one detent formed therein, the spring loaded projection on the at least one latch insert being biased into the at least one detent locking the at least one latch insert to the housing; and,

wherein the housing has another detent and a second latch insert from the pair of latch inserts has another spring loaded projection which is biased into the other detent in the housing.

4. (Original) The optical connector adapter according to Claim 1, wherein the at least one detent is a recess formed in a side of the at least one passage.

5. (Original) The optical connector adapter according to Claim 1, wherein the detent is an aperture extending through a side wall of the at least one passage.

6. (Original) The optical connector adapter according to Claim 1, wherein the at least one latch insert has an exterior surface which complements an interior surface of the at

least one passage, and has a resiliently flexible arm which supports the spring loaded projection.

7. (Original) The optical connector adapter according to Claim 6, wherein the exterior surface of the at least one latch insert complements the interior surface of the at least one passage around a perimeter of the exterior surface.

8. (Previously presented) An optical connector adapter comprising:

a housing having at least one passage formed therein for receiving a pair of connectors adapted to be mated to each other; and

a pair of latch inserts located in the at least one passage, each latch insert being adapted for locking a corresponding connector of the pair of connectors to the housing, and at least one latch insert of the pair of latch inserts having a spring loaded projection; wherein the at least one latch insert has another resiliently flexible arm with another spring loaded projection, the resiliently flexible arm and the other resiliently flexible arm being on opposite sides of the at least one latch insert

wherein the housing has at least one detent formed therein, the spring loaded projection on the at least one latch insert being biased into the at least one detent locking the at least one latch insert to the housing.

9. (Original) The optical connector adapter according to Claim 1, wherein an exterior surface of the at least one latch

insert contacts an interior surface of the at least one passage so that the at least one latch insert is stably held in at least one passage in alignment with another of the pair of latch inserts.

10. (Original) The optical connector adapter according to Claim 1, wherein the at least one latch insert has a pair of latching arms for latching to the corresponding connector.

11. (Currently amended) ~~The optical connector adapter according to Claim 1,~~ An optical connector adapter comprising:

a housing having at least one passage formed therein for receiving a pair of connectors adapted to be mated to each other; and

a pair of latch inserts located in the at least one passage, each latch insert being adapted for locking a corresponding connector of the pair of connectors to the housing, and at least one latch insert of the pair of latch inserts having a spring loaded projection;

wherein the housing has at least one detent formed therein, the spring loaded projection on the at least one latch insert being biased into the at least one detent locking the at least one latch insert to the housing,
wherein the at least one passage comprises multiple passages formed through the housing, each of the multiple passages being adapted to receive a corresponding pair of latch inserts therein.



(Currently amended) An optical connector adapter comprising:

an outer housing with at least one passage extending through the outer housing for mating a pair of opposing connectors therein; and

a pair of inner housings located in the at least one passage, each inner housing having a receptacle for receiving a corresponding connector of the pair of connectors, and a deflectable latch ~~for locking the~~ corresponding connector to the inner housing to the outer housing;

wherein the outer housing is a one-piece member, the pair of inner housings are adapted to be inserted into the at least one passage from opposite ends of the at least one passage.

13.

(Currently amended) ~~The optical connector adapter according to Claim 12,~~ An optical connector adapter comprising:

an outer housing with at least one passage extending through the outer housing for mating a pair of opposing connectors therein; and

a pair of inner housings located in the at least one passage, each inner housing having a receptacle for receiving a corresponding connector of the pair of connectors, and a latch for locking the corresponding connector to the inner housing;

wherein the outer housing is a one-piece member, the pair of inner housings are adapted to be inserted into the at least one passage from opposite ends of the at least one passage, wherein the outer housing has at least one guide rail, and at least one of the pair of inner housings has a complementing guide, the complementing guide and guide rail being slidably interlocked when the at least one inner housing is inserted into the at least one passage.

14. (Previously presented) The optical connector adapter according to Claim 13, wherein the interlocked complementing guide and guide rail align the at least one inner housing with another of the pair of inner housings in the at least one passage.

15. (Currently amended) The optical connector adapter according to Claim ~~12~~ 13, wherein the guide rail comprises a channel formed into a side wall of the at least one passage, the channel being aligned with an insertion axis of the at least one passage..

16. (Previously presented) An optical connector adapter comprising:

an outer housing with at least one passage extending through the outer housing for mating a pair of opposing connectors therein; and

a pair of inner housing located in the at least one passage, each inner housing having a receptacle for receiving a corresponding connector of the pair of

connectors, and a latch for locking the corresponding connector to the inner housing;

wherein the outer housing is a one-piece member, the pair of inner housings are adapted to be inserted into the at least one passage from opposite ends of the at least one passage; wherein the outer housing has at least one guide rail, and at least one of the pair of inner housings has a complementing guide, the complementing guide and guide rail being slidably interlocked when the at least one inner housing is inserted into the at least one passage; and wherein the at least one guide rail comprises a pair of guide rails, the guide rails being offset relative to each other at least in part so that a first one of the pair of guide rails allows insertion of one inner housing from one end of the passage, and a second one of the pair of guide rails allows insertion of a second inner housing from the opposite end of the passage.

17. (Previously presented) An optical connector adapter comprising:

an outer housing with at least one passage extending through the outer housing for mating a pair of opposing connectors therein; and

a pair of inner housings located in the at least one passage, each inner housing having a receptacle for receiving a corresponding connector of the pair of connectors, and a latch for locking the corresponding connector to the inner housing;

wherein the outer housing is a one-piece member, the pair of inner housings are adapted to be inserted into the at least one passage from opposite ends of the at least one passage; wherein each inner housing of the pair of inner housings has a spring loaded latch, and the outer housing has detents formed therein, and wherein the spring loaded latch on each inner housing automatically engages the detents when each inner housing is inserted into the outer housing and locking and locks each inner housing in the outer housing.

18. (Original) An optical connector adapter comprising:

an outer housing with at least one passage extending through the outer housing for mating a pair of opposing connectors therein; and

a pair of inner connector receptacles located in the passage, each inner connector receptacle being adapted for receiving a corresponding connector of the pair of opposing connectors and for locking the corresponding connector to the outer housing;

wherein the outer housing has a pair of guide rails for guiding insertion of the pair of inner connector receptacles into the at least one passage, a first one of the guide rails allowing insertion of a first one of the inner connector receptacles through only one end of the at least one passage and a second one of the guide rails allowing insertion of a second one of the inner connector receptacles through only an opposite end of the at least one passage.

19. (Original) The optical connector adapter according to Claim 18, wherein the outer housing is a one piece member.
20. (Original) The optical connector adapter according to Claims 18, wherein the pair of guide rails are disposed on opposite sides of the at least one passage.
21. (Original) The optical connector adapter according to Claims 18, wherein the pair of guide rails are formed into walls of the at least one passage.
22. (Original) The optical connector adapter according to Claims 18, wherein the at least one passage comprises multiple passages each being adapted for mating a corresponding pair of opposing connectors therein.
23. (Original) The optical connector adapter according to Claims 18, wherein the outer housing is a one-piece member and has a mounting section which is angled at an acute angle relative to a centerline axis of the at least one passage.

24. (Original) A method for fabricating an optical connector adapter, the method comprising the steps of:

providing an outer housing which is a one piece member, the outer housing being adapted for mating a pair of optical connectors therein, and having at least one passage extending through the outer housing;

inserting a first inner housing into the at least one passage, the first inner housing having a first

receptacle adapted for receiving a first connector of the pair of connectors;

securing the first inner housing to the outer housing;

inserting a second inner housing into the at least one passage, the second inner housing having a second receptacle adapted for receiving a second connector of the pair of connectors; and

securing the second inner housing to the outer housing;

wherein the first and second inner housings are inserted into the at least one passage through opposite ends of the at least one passage.

25. (Original) The method according to Claim 24, wherein securing the first inner housing comprises providing the first inner housing with a pair of spring loaded projections which engage detents in the outer housing when the first inner housing is inserted into the outer housing and lock the first inner housing in the outer housing.
26. (Original) The method according to Claim 24, wherein securing the second inner housing comprises providing the second inner housing with a pair of spring loaded projections which engage detents in the outer housing when the second inner housing is inserted into the outer housing and lock the second inner housing in the outer housing.

27. (Previously presented) The optical connector adapter according to Claim 1, wherein the spring loaded projection comprises a camming surface.

28. (Currently amended) The optical connector adapter according to Claim 1, wherein the ~~stop surface~~ spring loaded projection is adapted for preventing the at least one latch insert from being withdrawn from the housing.

29. (Previously presented) The optical connector adapter according to Claim 27, wherein the camming surface is adapted for causing resilient deflection of the spring loaded projection during insertion of the at least one latch insert.

30. (Previously presented) The optical connector adapter according to Claim 1, further comprising at least one door mounted on the housing.

31. (Cancelled)

32. (Currently amended) ~~The optical connector adapter according to Claim 31,~~ An optical connector adapter comprising:

a housing having at least one passage formed therein for receiving a pair of connectors adapted to be mated to each other; and

a pair of latch inserts located in the at least one passage, each latch insert being adapted for locking a corresponding connector of the pair of connectors to the

housing, and at least one latch insert of the pair of latch inserts having a spring loaded projection;

wherein the housing has at least one detent formed therein, the spring loaded projection on the at least one latch insert being biased into the at least one detent locking the at least one latch insert to the housing further comprising at least one door mounted on the housing, wherein the adapter is adapted for mounting to a panel, and wherein the centerline axis of the at least one passage is pitched relative to the panel.

33. (Currently amended) The optical connector adapter according to Claim ~~31~~ 32, wherein the adapter is adapted for mounting with an EMI gasket.